



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:	)	
	)	Art Unit: 2631
Martin H. Graham	)	
	)	Examiner: Burd, Kevin Michael
Serial No.: 09/221,291	)	
	)	
Filed: December 23, 1998	)	
	)	
For: Biphase Multiple Level Communications	)	
	)	
	)	
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	)	

Mail Stop Appeal Brief-Patents  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. §41.37(a)

Dear Sir:

Applicant hereby submits this Brief in support of its appeal from a decision by the Examiner, mailed on March 18, 2005, in the above-captioned case. The claims have been rejected three times since the last RCE, and as a result applicant hereby files this appeal in response to the rejection of the claims. The applicant respectfully requests consideration in this appeal by the Board of Patent Appeals and Interferences and request allowance of the above-captioned patent application.

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(1) REAL PARTY IN INTEREST

And Yet, Inc., a California Corporation

(2) RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to the present appeal.

(3) STATUS OF CLAIMS

Claims 19-25 are pending.

Claims 19-22, 24, and 25 are rejected under 35 U.S.C. §103 as being unpatentable over Gord et al. (U.S. Patent No. 5,999,848) (hereinafter “**Gord**”) in view of Vanderpool et al. (U.S. Patent No. 5,654,978) (hereinafter “**Vanderpool**”). Claim 23 is rejected in view of an additional reference, Pernyeszi (U.S. Patent No. 5,969,547) (hereinafter “**Pernyeszi**”).

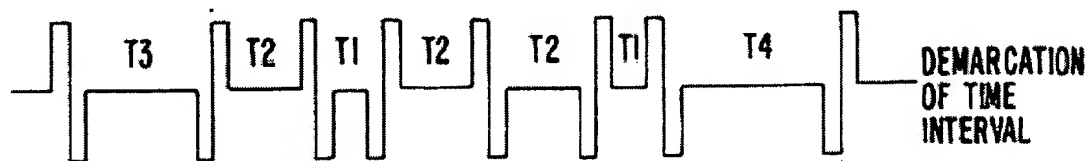
The applicant respectfully appeals from the office action dated March 18, 2005 with respect to all the pending claims, claims 19-25. A copy of the claims as they currently stand are attached as Appendix A.

(4) STATUS OF AMENDMENTS

There are no amendments pending. Claims 19-25 were submitted on January 8, 2004, and except for a minor amendment on April 30, 2004, have remained unchanged over the last two office actions.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

The application describes a method for encoding data for transmission. The claimed invention, for all the claims except claim 22 and 23, is readily seen from Figure 2b of the application, reproduced immediately below.



**Fig. 2b of Graham**

In the figure there are a series of bi-phasic pulses separated by time. Importantly, the application teaches using first bi-phasic pulses, defined as a pulse having a first portion that is positive and then a second portion that is negative. Second bi-phasic pulses are defined as pulses that have a first portion that is negative and then a second portion that is positive. Overall, the pulses alternate “polarity.” As can be seen in Figure 2b, the bi-phasic pulses alternate, that is, there is a sequence of a first bi-phasic pulse, a second bi-phasic pulse, a first bi-phasic pulse, a second bi-phasic pulse, etc. These pulses themselves do not indicate data. Rather, the time between the pulses is the indication of the data. Four different times (T1, T2, T3, T4) are shown in Figure 2. Each of these times represents a plurality of bits. For instance, T1 can equal 00, T2=01, T3=10, and T4=11. Thus, the duration or dead time between the bi-phasic pulses determines what data that is transmitted.

There are advantages to alternating the “polarity” of the bi-phasic pulses, which is the gist of the present invention. These alternating pulses, as described in the application, reduce interference between consecutive bi-phasic pulses so that the signal received can be more easily recovered.

This is the sum and substance of claims 19, 20, 21, 24 and 25.

The dependent claims 22 and 23 add the concept that the bi-phasic pulses, themselves, can also be used to transmit data by varying their amplitude (claim 22) and by varying their pulse width (claim 23).

(6) GROUND OF REJECTIONS TO BE REVIEWED ON APPEAL

Claims 19-22, 24 and 25 were rejected under 35 U.S.C. §103 based on **Gord**, in view of **Vanderpool**.

Claim 23 added the reference **Pernyeszi**.

7) ARGUMENT

All the claims stand or fall together with respect to the 35 U.S.C. §103.

Immediately below is Figure 6 from **Gord**.

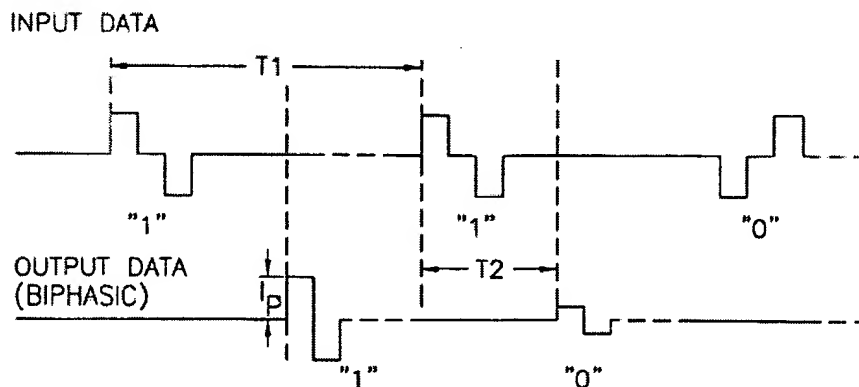
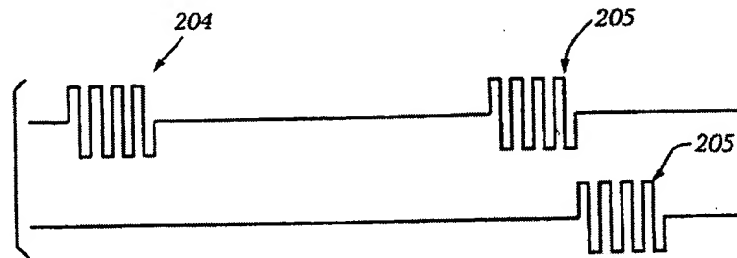


FIG. 6 OF GORD, ET AL.

Gord illustrates first bi-phasic pulses and second bi-phasic pulses for input data, as these terms are defined by the claims. However, the pulses do not alternate. The first pulses are used to transmit a binary "1" and the second pulses to transmit a binary "0." The pulses themselves transmit the data, the times between the pulses is constant. For output data, the bi-phasic pulses are of a single type, and are not relevant for this argument. Figure 8 of Gord shows the same concept as Figure 6.

Shown immediately below, is Figure 4 of Vanderpool.



**Fig.4** OF VANDERPOOL, ET AL.

Vanderpool transmits data by the duration or dead time between the pulse frames 204 and 205. Thus, referring to Figure 4 of Vanderpool, if the time between 204 and 205 increases, it represents different data than if the time decreases. Applicant concedes that this is what is being done in the present invention, except for the fact that the pulses are not the alternating bi-phasic pulses required by all the claims. Note in Figure 4 above, all the framing pulses start and end with the same polarity.

The rejection replaces the fixed time between the pulses of Gord, et al. with the variable dead time of Vanderpool, et al. The rejection does not address the alternating pulses.

First, there is no teaching in either reference for taking the bi-phasic pulses of Gord and placing them into Vanderpool. Even when the two are combined, they do not provide the claimed invention. The claims require that the first and second bi-phasic pulses are opposite to one another. This would require, in terms of Gord, that Gord transmits 1010101010. Transmitting meaningful data with Gord would not produce this bit pattern, and there is no teaching in Gord to provide this bit pattern. In fact, it makes no sense for Gord to provide this bit pattern because in so doing, real data would not be transmitted, and there would be no utility to Gord.

In response to this argument, in the last office action dated March 18, 2005, the following appears:

Gord discloses transmitting bi-phasic pulses as shown in figure 8 and described in the previous office action. In the remarks, Applicant states, 'the claims require a first and second bi-phasic pulse of opposite polarity. In terms of Gord, this means Gord must transmit 10101010.' This is true but Gord could also transmit a sequence of 01010101 as well.

Applicant can see no difference whether Gord transmits 10101010 or 01010101.

Neither sequence provides useful data and neither sequence is suggested by Gord.

Moreover, as mentioned, there is no motive to combine Gord with Vanderpool.

Applicant submits that giving Gord and Vanderpool to a person of ordinary skill in the art, there would be no motivation, teaching or suggestion for combining them.

Also, a mere combining would not be enough since there is no teaching for alternating the bi-phasic pulses of Gord.

Consequently, applicant submits the rejection is improper and should be withdrawn, and the claims allowed.

CONCLUSION

Gord and Vanderpool, even if combined, do not provide the claimed invention.  
There is no justification to make the combination of Gord and Vanderpool.

Fee for Filing a Brief in Support of Appeal

Enclosed is authorization to charge our deposit account No. 02-2666 in the amount of \$250.00 to cover the fee for filing of a brief in support of an appeal required under 37 C.F.R. 1.17(f) and 1.192.

Charge Our Deposit Account

If there are any further charges not accounted for herein, please charge them to our deposit account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

Dated: 12/19/05

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(8) APPENDIX A

**1-18 (Cancelled)**

19. (Previously presented) A method for encoding data bits for transmission comprising:  
generating a first biphasic pulse having a first portion of a first polarity followed by a second portion of a second polarity;  
waiting a period of time following the second portion of the first biphasic pulse during which period of time no amplitude dependent data bits are encoding, the duration of the period of time being selected to represent a plurality of data bits; and  
generating a second biphasic pulse following the period of time, the second biphasic pulse having a third portion of the second polarity followed by a fourth portion of the first polarity.

20. (Previously presented) The method of claim 19, wherein each biphasic pulse has no DC component.

21. (Previously presented) The method of claim 20, wherein each of the portions of the first and second biphasic pulses are single polarity pulses having an amplitude and a pulse width.

22. (Previously presented) The method of claim 21, wherein the amplitude of the single polarity pulses represents at least one data bit.

23. (Previously presented) The method of claim 22, wherein the pulse width of each of the single polarity pulses represents at least one data bit.



24. (Previously presented) The method defined by claim 19, including the step of transmitting a signal generated by the steps of claim 19 onto a twisted pair line.

25. (Previously presented) A method for decoding data bits from a received signal comprising:

detecting a first biphasic pulse having at least a first polarity, the first biphasic pulse having been transmitted with a first portion of a first polarity followed by a second portion of a second polarity;

detecting a second biphasic pulse having at least a second polarity, the second biphasic pulse having been transmitted with a third portion of the second polarity followed by a fourth portion of the first polarity;

measuring the time between the first and second biphasic pulses; and

correlating the measured time to a plurality of data bits.

(9) APPEAL BRIEF - EVIDENCE APPENDIX

There is no documentation pursuant to §§ 1.130, 1.131, or 1.132 of this title and therefore is not included in this Evidence Appendix.

(10) APPEAL BRIEF - RELATED PROCEEDINGS APPENDIX

There are no related proceedings and therefore no documentation to be included in this Related Proceedings Appendix.